

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

**Date of Report: June 10, 1993**

**Date Received: June 8, 1993**

**Project: 3317 Spot Checks, PO #M29288**

**Date Samples Extracted: June 9, 1993**

**Date Extracts Analyzed: June 9, 1993**

**RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLE  
FOR TCLP METALS IN ACCORDANCE WITH  
40 CFR PART 261**

**Results Reported as mg/L (ppm)**

<u>Sample ID</u>	<u>M29288</u>	<u>Regulatory Level</u>
Analyte:		
Chromium	0.8	5.0
Lead	<0.5	5.0
Copper	95	
Nickel	47	
Zinc	1.5	

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FOR TCLP METALS IN ACCORDANCE WITH  
40 CFR PART 261**

**Results Reported as mg/L (ppm)  
Quality Assurance**

<u>Sample #</u>	<u>Blank</u>	<u>M29288 (Duplicate)</u>	<u>Regulatory Level</u>
Analyte:			
Chromium	<0.5	0.7	5.0
Lead	<0.5	<0.5	5.0
Copper	<0.5	77	
Nickel	<0.5	37	
Zinc	<0.5	1.3	



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**RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLE  
FOR TCLP METALS IN ACCORDANCE WITH  
40 CFR PART 261****Results Reported as % Recovery  
Quality Assurance**

<u>Sample #</u>	<u>M29288 Matrix Spike % Recovery</u>	<u>M29288 Matrix Spike Duplicate % Recovery</u>	<u>Spike Level</u>
Analyte:			
Chromium	92%	94%	5
Lead	92%	97%	10
Copper	ai	ai	5
Nickel	ai	ai	10
Zinc	92%	92%	5

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<sup>ai</sup> The amount spiked was insufficient to give meaningful recovery data.

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FOR TCLP METALS IN ACCORDANCE WITH  
40 CFR PART 261**

**Results Reported as % Recovery  
Quality Assurance**

<u>Sample #</u>	<u>Spike Blank</u>	<u>Spike Level</u>
Analyte:		
Chromium	93%	5
Lead	93%	10
Copper	98%	5
Nickel	95%	10
Zinc	94%	5



## SAMPLE CHAIN OF CUSTODY

Company NIASCAN Copper Works Contact Gerald Thompson  
Address 623 Hawthorne St  
City, State, Zip Seattle WA 98134  
Phone # (206) 623-5800 x218 Date 6/8/93

SITE NO.

PROJECT NAME

PURCHASE ORDER #

3317 SPOT Checks <sup>SA</sup><sub>Dust</sub>

M 29288

SAMPLERS (signature)

### PROJECT LOCATION

REMARKS

**SAMPLE DISPOSAL INFORM.**

☐ Dispose after 30 days  
☒ Return Samples  
☐ Call for Instructions

SAMPLE #

Date/Time  
Sampled

Type of Sample

# of  
Jars

Lab  
Sample #

## Analyses Requested

M 29288

6/8/53 8:00 AM

MTLS

/

40566

TCP for  
Cr, Cu, Ni, Zn, Pb

SIGNATURE

PRINT NAME

COMPANY

Date \_\_\_\_\_

Time

Relinquished by:

Gene W Thompson

ALASKAN Copper

6/8/55

8:40 am

Received by:

Jeff Anderson

BT

6/8/93

84 Dan

Relinquished by:

Received by:



**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Andrew John Friedman  
James E. Bruya, Ph.D.  
(206) 285-8282

3008-B 16th Avenue West  
Seattle, WA 98119  
FAX: (206) 283-5044

**June 10, 1993**

**INVOICE # 93ACU0610-1**

**Alaskan Copper Works  
628 South Hanford  
Seattle, WA 98134**

**RE: Project 3317 Spot Checks, PO #M29288: Results of testing requested by  
Gerry Thompson, Project Leader and submitted on June 8, 1993.**

**1 soil sample analyzed for TCLP Metals @ \$150 per  
sample**

**\$ 150.00**

**Amount Due .....**

**\$ 150.00**

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

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James E. Bruya, Ph.D.  
(206) 285-8282

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Seattle, WA 98119  
FAX: (206) 283-5044

**June 10, 1993**

**Gerry Thompson, Project Leader  
Alaskan Copper Works  
628 South Hanford  
Seattle, WA 98134**

**Dear Mr. Thompson:**

**Enclosed are the results from the testing of material submitted on June 8, 1993  
from Project 3317 Spot Checks, PO #M29288.**

**We appreciate this opportunity to be of service to you and hope you will call if you  
should have any questions.**

**Sincerely,**



**Bradley T. Benson  
Chemist**

**BTB/dp**

**Enclosures**